

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

MORPHO KOMODO LLC,

Plaintiff,

v.

BLU PRODUCTS INC. ET AL.,

Defendants.

§
§
§
§
§
§
§
§
§
§
§

Case No. 2:15-cv-1100-JRG-RSP

MEMORANDUM OPINION AND ORDER

On May 18, 2016, the Court held a hearing to determine the proper construction of the disputed claim terms in United States Patent Nos. 7,350,078 (“the ’078 Patent”), 7,725,725 (“the ’725 Patent”), and 8,429,415 (“the ’415 Patent”) (collectively, the “Asserted Patents”). After considering the intrinsic and extrinsic evidence presented by the parties at the hearing and in the briefing (Dkt. Nos. 136, 142, and 143), the Court issues this Claim Construction Memorandum and Order. *See Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005); *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831 (2015).

TABLE OF CONTENTS

I.	BACKGROUND	3
II.	APPLICABLE LAW	4
III.	CONSTRUCTION OF AGREED TERMS	10
IV.	CONSTRUCTION OF DISPUTED TERMS	11
A.	Disputed Constructions	11
1.	“computer”	11
2.	“signal”	14
3.	“measurable variable input”	18
4.	“signature”	22
5.	“input device” and “user-selected device” / “user-selected input device” ...	25
B.	The “wherein” Terms	29
6.	“wherein creating said signature using recorded signals from a plurality of signal types”	30
7.	“wherein passively terminating said recording”	34
8.	“wherein recording a plurality of signal types for at least one user-selected device”	36
9.	“wherein said recording comprises a plurality of user-selected devices”	39
V.	CONCLUSION	42

I. BACKGROUND

The '078 Patent is titled "User Selection of Computer Login," and relates to the field of computer login by user-determined submission. '078 Patent at 1:44–45. The '078 Patent was filed on March 4, 2002, issued on March 25, 2008, and claims priority based on a provisional application filed on April 26, 2001. The '415 Patent and the '725 Patent are titled "User-Selectable Signatures." The '415 Patent and the '725 Patent also relate to the field of computer login by user-determined submission. The '725 Patent was filed on December 23, 2006, and issued on May 25, 2010. The '415 Patent was filed on April 13, 2010, and issued on April 23, 2013.

The '415 Patent is a continuation of the '725 Patent, which in turn is a continuation of the '078 Patent. The parties agree, at least for purposes of the present claim construction proceedings, that "all three patent share an effectively identical specification." (Dkt. No. 142 at 6.)¹ The Court notes that the specifications of the Asserted Patents appear to be identical except for a discussion of prior art that appears in the Background of the '078 Patent (1:21-40), but not in the '725 Patent or the '415 Patent. Plaintiff has not challenged Defendants' position that the additional language in the '078 Patent can be considered when construing the disputed terms as to all of the Asserted Patents.

The Abstract of the '078 Patent is representative and states:

Computer login may comprise any user-determined submission. A user may select the input devices used, and which types of signals from input devices are to be used for login authentication. Account identification may be inferred by signature rather than explicitly stated. A plurality of discontinuous data blocks in a plurality of files may be employed for validation. The paths to data used in validation may be multifarious, regardless of the prospects for successful authorization.

¹ Unless otherwise indicated, all citations to documents filed with the Court are to the ECF page number assigned by the Court's filing system.

According to Defendants' response brief, the independent claims asserted by Plaintiff are claims 1 and 9 of the '078 Patent; claims 1, 10, and 15 of the '725 Patent; and claim 1 of the '415 Patent. (Dkt. No. 142 at 6.) Claim 1 of the '078 Patent is an exemplary claim and recites the following elements (disputed term in italics):

1. A *computer*-implemented method for creating a *signature* for subsequent authentication comprising:
indicating to a user commencement of *signature* input recording;
recording user input *signals* by type from at least one *user-selected device* among a plurality of selectable user *input devices*,
wherein a *signal* comprises a set of related software-recognizable data of the same type received from at least one *input device*, and
wherein at least one user-selectable *input device* affords recording a plurality of *signal* types, and
wherein a *signal* type comprises a category, among a plurality of possible categories, of *measurable variable input* associated with at least one user-selectable *input device*;
terminating said recording; creating a *signature* based at least in part upon said recording; and
storing said *signature*.

Finally, the Court notes that the Asserted Patents were previously asserted by a prior owner in a number of cases before the Court. *See Tierra Intelectual Borinquen, Inc., v. HTC Corporation. et al*, Case No. 2:13-cv-39-JRG (Consolidated Lead Case) ("the *Tierra Case*"). In the *Tierra Case*, the Court construed certain terms in the Asserted Patents. *See Tierra Case*, Dkt. No. 110 (May 13, 2014). The Claim Construction Order from the *Tierra Case* is attached to Plaintiff's Opening Brief as Exhibit D. (*See* Dkt. No. 136-4.)

II. APPLICABLE LAW

A. Claim Construction

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303,

1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. *Id.* at 1313; *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 861 (Fed. Cir. 2004); *Bell Atl. Network Servs., Inc. v. Covad Commc'ns Grp., Inc.*, 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims, the specification, and the prosecution history. *Phillips*, 415 F.3d at 1314; *C.R. Bard, Inc.*, 388 F.3d at 861. The general rule is that each claim term should be construed according to its ordinary and customary meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the patent. *Phillips*, 415 F.3d at 1312–13; *Alloc, Inc. v. International Trade Comm'n*, 342 F.3d 1361, 1368 (Fed. Cir. 2003); *see Azure Networks, LLC v. CSR PLC*, 771 F.3d 1336, 1347 (Fed. Cir. 2014) (“There is a heavy presumption that claim terms carry their accustomed meaning in the relevant community at the relevant time.”) (vacated on other grounds).

“The claim construction inquiry. . . begins and ends in all cases with the actual words of the claim.” *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1248 (Fed. Cir. 1998). “[I]n all aspects of claim construction, ‘the name of the game is the claim.’” *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1298 (Fed. Cir. 2014) (quoting *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998)). First, a term’s context in the asserted claim can be instructive. *Phillips*, 415 F.3d at 1314. Both the asserted or unasserted claims can further aid in determining the claim’s meaning, because claim terms are typically used consistently throughout the patent. *Phillips*, 415 F.3d at 1314. Differences among the claim terms can also assist in understanding a term’s meaning. *Phillips*, 415 F.3d at 1314. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Phillips*, 415 F.3d at 1314–15; *see also Indacon, Inc. v. Facebook, Inc.*, No. 2015-

1129, 2016 WL 3162043, at *4 (Fed. Cir. June 6, 2016) (“Further, ‘[a]lthough claim differentiation is a useful analytic tool, it cannot enlarge the meaning of a claim beyond that which is supported by the patent documents, or relieve any claim of limitations imposed by the prosecution history.’” (quoting *Fenner Invs. Ltd. v. Cellco P’ship*, 778 F.3d 1320, 1325 (Fed. Cir. 2015))).

“[C]laims ‘must be read in view of the specification, of which they are a part.’” *Phillips*, 415 F.3d at 1314 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Phillips*, 415 F.3d at 1314 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). But, “[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); see *Phillips*, 415 F.3d at 1323. “[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 913 (Fed. Cir. 2004).

The prosecution history is another tool that supplies the context for claim construction because, like the specification, the prosecution history provides evidence of how the U.S. Patent and Trademark Office (“PTO”) and the inventor understood the patent. *Phillips*, 415 F.3d at 1317. However, “because the prosecution history represents an ongoing negotiation between the

PTO and the applicant, rather than the final product of that negotiation, it often lacks the clarity of the specification and thus is less useful for claim construction purposes.” *Phillips*, 415 F.3d at 1318; *see also Athletic Alternatives, Inc. v. Prince Mfg.*, 73 F.3d 1573, 1580 (Fed. Cir. 1996) (ambiguous prosecution history may be “unhelpful as an interpretive resource”).

Finally, although extrinsic evidence can be useful, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language.” *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Phillips*, 415 F.3d at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert’s conclusory, unsupported assertions as to a term’s definition are entirely unhelpful to a court. *Phillips*, 415 F.3d at 1318. Generally, extrinsic evidence is “less reliable than the patent and its prosecution history in determining how to read claim terms.” *Phillips*, 415 F.3d at 1318. The Supreme Court recently explained the role of extrinsic evidence in claim construction:

In some cases, however, the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period. *See, e.g., Seymour v. Osborne*, 11 Wall. 516, 546 (1871) (a patent may be “so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning”). In cases where those subsidiary facts are in dispute, courts will need to make subsidiary factual findings about that extrinsic evidence. These are the “evidentiary underpinnings” of claim construction that we discussed in *Markman*, and this subsidiary factfinding must be reviewed for clear error on appeal.

Teva Pharm. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015).

B. Departing from the Ordinary Meaning of a Claim Term

There are “only two exceptions to [the] general rule” that claim terms are construed according to their plain and ordinary meaning: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.”² *Golden Bridge Tech., Inc. v. Apple Inc.*, 758 F.3d 1362, 1365 (Fed. Cir. 2014) (quoting *Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012)); *see also GE Lighting Sols., LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“[T]he specification and prosecution history only compel departure from the plain meaning in two instances: lexicography and disavowal.”). The standards for finding lexicography or disavowal are “exacting.” *GE Lighting*, 750 F.3d at 1309. Although a statement of lexicography or disavowal must be exacting and clear, it need not be “explicit.” *See Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1364 (Fed. Cir. 2016) (“a patent applicant need not expressly state ‘my invention does not include X’ to indicate his exclusion of X from the scope of his patent”). Lexicography or disavowal can be implicit where, e.g., the patentee makes clear statements characterizing the scope and purpose of the invention. *See On Demand Mach. Corp. v. Ingram Indus., Inc.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006) (“[W]hen the scope of the invention is clearly stated in the specification, and is described as the advantage and distinction of the invention, it is not necessary to disavow explicitly a different scope.”). Nonetheless, the plain meaning governs “[a]bsent implied or explicit lexicography or disavowal.” *Trs. of Columbia Univ.*, 811 F.3d at 1364 n.2.

² Some cases have characterized other principles of claim construction as “exceptions” to the general rule, such as the statutory requirement that a means-plus-function term is construed to cover the corresponding structure disclosed in the specification. *See, e.g., CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1367 (Fed. Cir. 2002).

To act as his own lexicographer, the patentee must “clearly set forth a definition of the disputed claim term,” and “clearly express an intent to define the term.” *GE Lighting*, 750 F.3d at 1309 (quoting *Thorner*, 669 F.3d at 1365); *see also Renishaw*, 158 F.3d at 1249. The patentee’s lexicography must appear “with reasonable clarity, deliberateness, and precision.” *Renishaw*, 158 F.3d at 1249.

To disavow or disclaim the full scope of a claim term, the patentee’s statements in the specification or prosecution history must amount to a “clear and unmistakable” surrender. *Cordis Corp. v. Boston Sci. Corp.*, 561 F.3d 1319, 1329 (Fed. Cir. 2009); *see also Thorner*, 669 F.3d at 1366 (“The patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.”). “Where an applicant’s statements are amenable to multiple reasonable interpretations, they cannot be deemed clear and unmistakable.” *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1326 (Fed. Cir. 2013); *see also Avid Tech., Inc. v. Harmonic, Inc.*, 812 F.3d 1040, 1045 (Fed. Cir. 2016) (“When the prosecution history is used solely to support a conclusion of patentee disclaimer, the standard for justifying the conclusion is a high one.”).

C. Construction Indefiniteness

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. A claim, when viewed in light of the intrinsic evidence, must “inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). If the claim and the intrinsic evidence do not inform a person of ordinary skill in the art with “reasonable certainty” about the scope of the invention, the claim fails § 112, ¶ 2 and is therefore invalid as indefinite.

Nautilus, 134 S. Ct. at 2124. Whether a claim is indefinite is determined from the perspective of one of ordinary skill in the art as of the time the application for the patent was filed. *Nautilus*, 134 S. Ct. at 2130. As it is a challenge to the validity of a patent, the failure of any claim in suit to comply with § 112 must be shown by clear and convincing evidence. *Nautilus*, 134 S. Ct. at 2130 n.10. “[I]ndefiniteness is a question of law and in effect part of claim construction.” *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 517 (Fed. Cir. 2012).

When a term of degree is used in a claim, “the court must determine whether the patent provides some standard for measuring that degree.” *Biosig Instruments, Inc. v. Nautilus, Inc.*, 783 F.3d 1374, 1378 (Fed. Cir. 2015) (quotation marks omitted). Likewise, when a subjective term is used in a claim, “the court must determine whether the patent’s specification supplies some standard for measuring the scope of the [term].” *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1351 (Fed. Cir. 2005); *accord Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014) (citing *Datamize*, 417 F.3d at 1351).

III. CONSTRUCTION OF AGREED TERMS

The parties agreed to the constructions of the following terms/phrases:

Claim Term/Phrase	Agreed Construction
“predetermined degree of inexactness”	“a preset allowable measure of deviation from the recorded signal”
“designated tolerance of inexactness”	“a preset allowable measure of deviation from the recorded signal”
“passively terminating”	“stopping without overt user action when a predetermined condition is met”
“signal type”	“a category of measurable variable input associated with at least one user-selectable input device”

(Dkt. No. 142 at 10.) In view of the parties’ agreement on the proper construction of the

identified terms, the Court hereby **ADOPTS** the parties' agreed constructions.

IV. CONSTRUCTION OF DISPUTED TERMS

The parties' dispute focuses on the meaning and scope of ten terms/phrases in the Asserted Patents.

A. Disputed Constructions

1. "computer"

<u>Disputed Term</u>	<u>Plaintiff's Proposal</u>	<u>Defendants' Proposal</u>
"computer"	"a device having a processor, a memory, one or more devices with retention medium(s), and having the capacity to receive input from one or more input devices"	"a laptop or desktop computer"

a) The Parties' Positions

The parties dispute whether the term "computer" should be limited to a "laptop or desktop computer," as Defendants propose. Plaintiff argues that Defendants' construction does not define the term "computer," but instead changes the word "computer" to "a laptop or desktop computer." (Dkt. No. 136 at 14.) Plaintiff contends that it is well understood that a general computer must have a "processor, a memory, one or more devices with retentions medium(s)." (*Id.* at 15.) Plaintiff further contends that in the Asserted Patents, each computer must also have the "capacity to receive input from one or more devices," because the claims require the operation of the computer with one or more input devices. (*Id.*) (citing Figure 1 items 106, 107, 108, and 109). Plaintiff argues that its construction articulates the ability to receive input from one or more input devices to create a signature used in precluding unauthorized access. (Dkt. No. 136 at 15.)

Defendants respond that the specification and claims are clear that a "computer" is a narrower term than a "computing device," and that handheld and embedded devices are

specifically excluded from the meaning of the term “computer.” (Dkt. No. 142 at 10.) Defendants argue that Plaintiff’s construction would expressly encompass subject matter that the patentee did not regard as within the scope of the word “computer.” (*Id.* at 11.) Defendants contend that the patentee stated that hand-held and embedded devices could use the software of his invention because they were like computers, but were expressly not computers. (*Id.*) (citing ’078 Patent at 2:45–48).

Defendants further argue that the claims of the ’415 Patent clarify the distinction and show that Plaintiff’s construction is not a limitation. (Dkt. No. 142 at 12.) Defendants argue that claim 1 of the ’415 Patent recites a “computing device” (not a computer) comprising, a processor, a program memory, a data storage memory (e.g., a data retention medium), and two input devices. (*Id.*) Defendants further argue that under Plaintiff’s proposed construction, claim 2 would be identical in scope to claim 1, which would disregard the canon of claim differentiation. (*Id.*) According to Defendants, this indicates that all computers are computing devices, but not all computing devices are computers. (*Id.* at 13.) Defendants further contend that all desktop computers are computers, and that computers are separate and distinct from “hand-held” and “embedded” devices that may also implement the invention’s software. (*Id.*)

Plaintiff replies that claims 1, 2, and 3 of the ’415 Patent emphasize that a “desktop computer” is considered a “computer,” which is further considered a computing device. (Dkt. No. 143 at 4.) Plaintiff argues that claim 4 of the ’415 Patent does not explicitly or implicitly limit a “computer” to a “laptop or desktop computer,” but only explicitly states that a “hand-held computing device” is an embodiment of a “computing device.” (*Id.*) According to Plaintiff, neither the specification nor claims include language that excludes “hand-held or embedded devices” from “computer,” nor do the claims explicitly exclude “hand-held computing device”

from “computer.” (*Id.*)

Plaintiff also argues that under Defendants’ construction, “computer” would be construed as any laptop or desktop computer without actually defining computer. (*Id.*) Plaintiff argues that this construction is inconsistent with the Asserted Patents because thin-client or dumb terminals, which may not include a processor, would fall under Defendants’ construction. (*Id.* at 5.)

For the following reasons, the Court finds that the term **“computer”** should be given its plain and ordinary meaning.

b) Analysis

The term “computer” appears in claims 1, 9, 16, 20, and 22 of the ’078 Patent; claims 1, 10, and 15 of the ’725 Patent; and claims 2 and 3 of the ’415 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. As an initial matter, Defendants stated at the claim construction hearing that the only issue with the term “computer” was whether it should be limited to a “laptop or desktop computer.” The Court finds that the intrinsic evidence indicates that the term “computer” should not be limited as Defendants propose. Defendants’ argument primarily focuses on a sentence from the specification which states that “the software described may find application in other computer-like devices requiring secured access, including hand-held or embedded devices.” ’078 Patent at 2:45–48. According to Defendants, this sentence shows that the patentee understood that hand-held and embedded devices were like computers, but were expressly not computers. (Dkt. No. 142 at 11.)

The Court disagrees. Contrary to Defendants’ contention, the patentee did not clearly and unambiguously disclaim “hand-held devices” from the scope of the term “computer.” Even assuming that Defendants are correct and that “computer-like” devices are not “computers,” the

specification does not say that hand-held devices cannot be either “computers” or “computer-like” devices. At best, the specification shows that some “computer-like” devices may be hand-held. However, this says nothing about “computers” that may be “hand-held,” and does not limit the term “computer” to only “laptop or desktop” computers. Indeed, Defendants concede that other types of computers “may also exist.” (Dkt. No. 142 at 13 n.3.) Defendants’ construction does not define the disputed term “computer,” but instead improperly narrows the term to “a laptop or desktop computer.”

Finally, the Court is not persuaded by Defendants’ claim differentiation argument, especially given that the Court is not adopting Plaintiff’s construction. *See, e.g.*, Dkt. 142 at 12 (Defendants argue that “[u]nder Plaintiff’s proposed construction, claim 2 [of the ’415 Patent] would be identical in scope to claim 1 [of the ’415 Patent].”). Likewise, the fact that claim 4 of the ’415 Patent states that the “computing device” can be “hand-held” does not explicitly or implicitly limit a “computer” to a “laptop or desktop computer.” Instead, it only indicates that a “hand-held computing device” is an embodiment of the “computing device.” Having resolved the parties’ claim construction dispute, the Court finds that the term “computer” should be given its plain and ordinary meaning.

c) Court’s Construction

In light of the evidence submitted by the parties, the term “**computer**” will be given its plain and ordinary meaning.

2. “signal”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“signal”	“a set of related software-recognizable data which results from user input into the computer via an input device”	“a set of related software recognizable data from a single transmission from an input device”

a) The Parties' Positions

The parties agree that a “signal” is “a set of related software-recognizable data.” The parties dispute whether a single signal can be communicated via multiple transmissions. The parties also dispute whether the phrase “which results from user input into the computer via an input device,” is necessary in light of the claim language. Plaintiff argues that Defendants’ construction ignores the prior claim construction order, and takes a single line from the specification out of context. (Dkt. No. 136 at 8.) Plaintiff contends that the claim language already defines the term “signal.” (*Id.* at 9) (citing ’078 Patent at Claim 1). Plaintiff further argues that Defendants’ construction seeks to read out the “user input” requirement. (Dkt. No. 136 at 9.) According to Plaintiff, the claim language explicitly states that a signal “results from user input.” (*Id.*)

Plaintiff also argues that Defendants attempt to improperly import the limitation “from a single transmission” into the claims. (*Id.*) Plaintiff contends that the specification does not limit a signal to only come from a single transmission. (*Id.* at 10) (citing ’078 Patent at 3:16–17, 3:29–31). According to Plaintiff, the Court’s construction of “signal” in the *Tierra* Case is correct. (Dkt. No. 136 at 10.)

Defendants argue that they cannot be bound by a judgment from a different case, involving different defendants, with different disputes. (Dkt. No. 142 at 14) (citing *Taylor v. Sturgell*, 553 U.S. 880, 892–93 (2008)). Defendants contend they are proposing a construction that was not previously presented to the Court. (*Id.*) Defendants further argue that the specification of the ’078 Patent states that “a signal is a set of related software-recognizable data from a single transmission.” (*Id.*) (citing ’078 Patent at 3:29–30). Defendants contend that Plaintiff mischaracterizes and misapplies the teachings in the specifications. (Dkt. No. 142 at 15.) Defendants further argue that Plaintiff cites to passages of the specification of the ’078

Patent without providing any explanation on how those passages affect the construction of the term. (*Id.*)

Defendants also contend that a single transmission which includes a plurality of signals does not contradict or otherwise impact Defendants' construction. (*Id.*) Defendants agree that a single transmission may include multiple signals, but argue that this teaching does not suggest that a single signal may be spread across multiple transmissions. (*Id.*) Defendants also contend that Plaintiff cannot point to a single portion of the specification that suggests or otherwise supports Plaintiff's argument. (*Id.*) Defendants argue that the specification clearly states that "a signal is a set of related software-recognizable data from a single transmission." (*Id.* at 16) (citing '078 Patent at 3:29–30).

Finally, Defendants argue that the phrase "which results from user input into the computer via an input device" is unnecessary in light of the claim language. (Dkt. No. 142 at 16.) According to Defendants, the language of claim 1 of the '078 Patent indicates that signals are received based upon user input, which makes Plaintiff's proposal redundant. (*Id.*) Defendants also argue that the claims do not specify or support Plaintiff's suggestion that this user input is "into the computer." (*Id.*).

Plaintiff responds that the defendants in the *Tierra* Case attempted to limit the claim term "signal" to a "single input," and were rejected by the Court as it is "unclear and is potentially too limiting." (Dkt. No. 143 at 5) (citing Dkt. No. 136-4 at 14). Plaintiff argues that adding the limitation "single transmission" is also unclear and too limiting. (Dkt. No. 143 at 5.) Plaintiff further argues that the phrase "which results from user input into the computer" is not confusing to a jury, because the specification is clear that the signal results not just from an input device, but that it must be from user input into the computer via an input device. (*Id.* at 6).

For the following reasons, the Court finds that the term **“signal”** should be construed to mean **“a set of related software-recognizable data which results from user input into the computer via an input device.”**

b) Analysis

The term “signal” appears in claims 1, 2, 3, 4, 9, 11, 12, 15, 20, 21, and 22 of the ’078 Patent; claims 1, 2, 3, 7, 8, 9, 10, 11, 13, 15, 16, 17, 18, 19, and 20 of the ’725 Patent; and claims 1, 12, 13, 14, and 15 of the ’415 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. As an initial matter, the briefing indicated that the parties disputed whether a single signal may be spread across multiple transmissions. During the claim construction hearing, Plaintiff agreed that a single signal could not be spread across multiple transmissions. The Court finds that the intrinsic evidence shows that a single signal cannot be spread across multiple transmissions. However, the intrinsic evidence does not limit a transmission to communicating only a single signal. The specification states that “a plurality of signals 2 of different types 21 may emanate from a single transmission 1.” ’078 Patent at 3:30–32. To the extent that a party argues against either of these findings, the Court rejects this argument.

Turning to the remaining dispute, the specification defines “signal” by relating it to a “transmission.” Specifically, the specification states that “[a] signal 2 is a set of related software-recognizable data from a single transmission 1.” ’078 Patent at 3:29–30. Defendants include the word “transmission” in their proposed construction. The Court finds that the term “transmission” could be confusing to a jury. Therefore, the Court will define “transmission” in its construction for “signal.” The specification states that “[a] transmission 1 is user input into the computer 100 via one or more input devices 106.” ’078 Patent at 3:15’19. Thus, consistent with the

construction in the *Tierra* Case, the Court construes “signal” to mean “a set of related software-recognizable data which results from user input into the computer via an input device.” Finally, the Court disagrees that the phrase “which results from user input into the computer via an input device” is unnecessary in light of the claim language. Instead, the phrase provides context for the term “transmission.”

c) Court’s Construction

In light of the evidence submitted by the parties, the Court construes **“signal”** to mean **“a set of related software-recognizable data which results from user input into the computer via an input device.”**

3. “measurable variable input”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“measurable variable input”	“an input quantity that can vary and that must be measured, as opposed to an input that is distinctly identifiable”	“an input quantity that can gradually vary and that must be measured, as opposed to an input that is discretely identifiable”

a) The Parties’ Positions

The parties dispute whether the input quantity must “gradually” vary, as Defendants propose. The parties also dispute whether the phrase “distinctly identifiable” in the construction provided in the *Tierra* Case should be replaced with “discretely identifiable.” Regarding the word “gradually,” Plaintiff argues that Defendants attempt to place an improper time restriction on the term “measurable variable input.” (Dkt. No. 136 at 10.) According to Plaintiff, the specification does not require input to gradually vary. (*Id.*) Plaintiff contends that transmissions to a computing device via one or more input devices result in a signal, and this signal may comprise any kind of signal that is “measurable” from the input device. (*Id.* at 11) (citing ’078 Patent at 3:16–19).

Plaintiff further argues that the specification discloses various examples of “measurable” signals. (Dkt. No. 136 at 11.) Plaintiff contends that typing a word into a keyboard may yield signals for the entered keys and the timing between keystrokes. (*Id.* at 11) (citing ’078 Patent at 3:32–33). Plaintiff further contends that the keys and timing between keystrokes are both “measurable,” because they can be measured and converted into signals. (Dkt. No. 136 at 11.) Plaintiff argues that the keys and timing between keystrokes are also “variable” because different characters may be used, and the timing of the keystrokes may not be consistent. (*Id.*)

Regarding the phrase “discretely identifiable,” Plaintiff argues that the prior construction stated that “‘measured characteristics’ are different from distinctly identifiable inputs such as key characters.” (*Id.* at 11) (citing Dkt. No. 136-4 at 23). According to Plaintiff, “distinctly identifiable” refers to an input that can be distinguishable without measurement. (Dkt. No. 136 at 11.) Plaintiff argues that the term “discretely identifiable” is confusing as the term “discrete” has a specific meaning within the context of computing. (*Id.*) Plaintiff also argues that the “discrete” limitation was proposed by Defendant Toshiba in the *Tierra* Case and was rejected. (*Id.* at 12.)

Defendants respond that Plaintiff is conflating the concepts of “measurable” and “variable,” and going so far as to find all types of user input to be “measurable variable input.” (Dkt. No. 142 at 17.) Regarding the term “variable,” Defendants argue that the specification and claims of the Asserted Patents discuss comparing a measured signal with a stored signal to determine whether these signals “match” within a certain “tolerance.” (*Id.*) Defendants argue that the specification distinguishes prior art validation methods which required an “absolute signal match” for authentication of typed passwords and the like. (*Id.* at 18) (citing ’078 Patent at 4:10–23).

Defendants further argue that the specification discusses methods of authenticating

difficult-to-exactly-replicate inputs such as timing, movement, and patterns. (Dkt. No. 142 at 18) (citing '078 Patent at 1:21–28). According to Defendants, the variation in precise keyboard passwords is categorically different than the less-precise measurable characteristics (*i.e.*, timing, movement, and patterns). (Dkt. No. 142 at 18.) Defendants argue that keyboard passwords or PINs are either entered in the correct order or they are not, and the variance in the input is absolute as opposed to gradual (*Id.*) Defendants contend that measurable characteristics described in the specification can, and often do, vary gradually. (*Id.*) Defendants argue that so long as this variance is within a certain allowable tolerance, the password will be accepted. (*Id.*) Defendants further argue that Plaintiff's construction does not account for this distinction, and that Plaintiff contends that keyboard strokes can constitute measurable variable input. (*Id.*) Defendants contend that this is strong evidence that Plaintiff intends to abuse the ambiguity in the prior construction. (*Id.* at 18-19.)

Defendants also argue that both parties agree that the proper construction of “measurable variable input” requires a distinction or contrast between different types of inputs. (*Id.* at 19.) Defendants contend that the simplest and most informative way to accomplish this is by drawing a clear distinction between measurable variable input (*i.e.*, difficult-to-exactly-replicate input that can be measured, such as timing or voice signals) and input that is discrete and identifiable without measurement (*e.g.*, password or PIN characters). (*Id.*) Defendants argue that the term “distinct” will only serve to further confuse the jury, because it is difficult to envision a situation where “identifiable” input is not “distinctly identifiable.” (*Id.*) Defendants contend that even measured characteristics (*i.e.*, timing, movement, and patterns) could be argued to be “distinctly identifiable.” (*Id.*)

Plaintiff replies that there is still no valid explanation as to why the limitation “gradually”

should be imposed on the claim term. (Dkt. No. 143 at 6.) Plaintiff contends that this additional limitation does not add any clarity to the construction of “measurable variable input,” and is far more confusing to a jury. (*Id.*) Plaintiff further contends that the prior construction already distinguished between what is variably measured and what is distinctly identifiable. (*Id.*) Plaintiff argues that Defendants have not provided any valid reason why “distinctly” should be replaced with “discretely.” (*Id.*) Plaintiff contends that there is no confusion with the prior construction since “variably measured” input is already contrasted with “distinctly identifiable” input. (*Id.*)

For the following reasons, the Court finds that the term **“measurable variable input”** should be construed to mean **“an input quantity that can vary and that must be measured, as opposed to an input that is distinctly identifiable.”**

b) Analysis

The term “measurable variable input” appears in claims 1, 9, 20, and 22 of the ’078 Patent; claims 1, 10, and 15 of the ’725 Patent; and claims 13, 14, 15, 16, and 17 of the ’415 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. As an initial matter, the briefing indicated that the parties disputed whether a password by itself is a “measurable variable input.” During the claim construction hearing, Plaintiff agreed that a password by itself was not a “measurable variable input,” but argued that the timing between keystrokes is important and would be a “measurable variable input.” The Court agrees. The Court in the *Tierra* Case specifically addressed this issue when it stated that “the significance of being ‘measurable’ is evident from the above-quoted portion of the Background section of the ’078 Patent, which discloses that ‘measured characteristics’ are different from distinctly identifiable inputs such as key characters.” (Dkt. No.

136-4 at 23.) To the extent that Plaintiff argues that a password by itself (*i.e.*, a password that does not include the timing between the keystrokes) is a “measurable variable input,” the Court rejects this argument.

Regarding Defendants’ “gradually” limitation, the Court finds that it does not add any clarity to the construction of “measurable variable input,” and is more confusing to a jury. Indeed, Defendants felt it was necessary to further construe the word “gradually” in a footnote in order to clarify its meaning. (Dkt. No. 142 at 18 n.5.) Likewise, the Court rejects Defendants’ “discretely” language. As with “gradually,” the Court finds that it does not add any clarity to the construction of “measurable variable input,” and is more confusing to a jury. Defendants’ briefs show that the word “discrete” can be confusing because Defendants provided three extrinsic definitions for the word “discrete,” but did not explain which definition they were proposing. (Dkt. No. 142 at 19 n.6.) Having resolved the parties’ dispute, the Court agrees with Plaintiff that there is no confusion with the construction from the *Tierra* Case since it explicitly contrasts “variably measured” input with “distinctly identifiable” input.

c) Court’s Construction

In light of the evidence submitted by the parties, the Court construes **“measurable variable input”** to mean **“an input quantity that can vary and that must be measured, as opposed to an input that is distinctly identifiable.”**

4. “signature”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“signature”	“at least one transmission intended as a security precaution to preclude unauthorized access”	“a transmission intended as a security precaution to preclude unauthorized access to a computer”

a) The Parties' Positions

The parties dispute whether a signature can be more than merely a single transmission, as Plaintiff proposes with the “at least one transmission.” The parties also dispute whether the construction should include a “computer” limitation, as Defendants propose.

Plaintiff argues that the '078 Patent defines the term “signature” with no qualifications. (Dkt. No. 136 at 12) (citing '078 Patent at 3:65–66). Regarding the phrase “at least one transmission,” Plaintiff contends that the specification discloses an embodiment where a “submission [may] solely comprise [a] signature,” and a “[s]ubmission comprises one or more transmissions intended for authenticating access to a computer or network of computers.” (Dkt. No. 136 at 12) (citing '078 Patent at 3:11–12; 3:1-3). Plaintiff further argues that the patent suggests that different types of transmissions can be used for a signature such as “mouse movements or clicks, keyboard entry, or combinations thereof.” (Dkt. No. 136 at 13) (citing '078 Patent at 3:20–21). Plaintiff argues that nowhere in the claims is there a requirement that a signature “preclude[] unauthorized access to a computer.” (Dkt. No. 136 at 13.) Plaintiff contends that the claims recite only that “a signature” is created “for subsequent authentication” (*e.g.*, precluding unauthorized access). (*Id.*)

Defendants respond that the Abstract of the Asserted Patents establish that the patentee’s usage of the term “signature” is directed to access to a computer. (Dkt. No. 142 at 20) (citing '725 Patent at Abstract.) Defendants argue that the detailed description indicates that the signature “4s includes the transmission required for access authentication 97 to a computer via a submission 9.” (Dkt. No. 142 at 20–21) (citing '078 Patent at 4:3–8, Figure 1). Defendants contend that the citation that Plaintiff relies on makes clear that the “signature” taught in the specification only allows authenticated access to a computer. (Dkt. No. 142 at 21.) According to Defendants, authenticating access to a room or a bank vault would fall outside of the scope of the

invention, and yet is literally encompassed within Plaintiff's construction. (*Id.*) Finally, Defendants argue that the *Tierra* Case claim construction order is not binding on Defendants. (*Id.*)

Plaintiff replies that the patentee acted as his own lexicographer and defined signature as "at least one transmission intended as a security precaution to preclude unauthorized access" (Dkt. No. 143 at 7) (citing '708 Patent at 3:65–66). According to Plaintiff, there is no limitation that "precludes unauthorized access to a computer" anywhere in the claims. (Dkt. No. 143 at 7.) Plaintiff contends that the claims recite only that "a signature" is created "for subsequent authentication" (*e.g.*, precluding unauthorized access). (*Id.*) Plaintiff also argues that the patentee has already defined "signature" as "at least one transmission..." which is broader than "a [single] transmission." (*Id.*)

For the following reasons, the Court finds that the term "**signature**" should be construed to mean **"at least one transmission intended as a security precaution to preclude unauthorized access."**

b) Analysis

The term "signature" appears in claims 1, 4, 5, 8, 9, 13, 14, 16, 20, 21, 22, and 23 of the '078 Patent; claims 1, 3, 4, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19, and 20 of the '725 Patent; and claims 1, 5, 11, and 12 of the '415 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. During the claim construction hearing, Defendants stated that their primary concern is including "to a computer" in the construction. Specifically, Defendants would like the term "signature" to be limited to their proposed construction for "computer," which would exclude hand-held devices. Although the Court agrees that the principle use is a computer, the Court will not limit the claims to a

preferred embodiment. As indicated above, the Court is not persuaded that the claims are limited to Defendants’ proposed construction of “computer.”

Moreover, the patentee provided an explicit definition for the term “signature,” which does not include Defendants’ additional language. Specifically, the specification states that “[a] signature 4 is at least one transmission 1 intended as a security precaution to preclude unauthorized access 39.” ’078 Patent at 3:65–66. Defendants correctly note that the specification also states that “submission 9 comprises one or more transmissions 1 intended for authenticating access to a computer 100 or network of computers 100.” ’078 Patent at 3:1–3. However, this statement is in the context a preferred embodiment, which is a desktop computer 100. Moreover, Figure 18, which depicts an example of validation key trajectory resulting in access, does not mention a “computer.” ’078 Patent at 9:14–10:5. Finally, regarding the “at least one” language, the parties agreed to the “at least one” language during the claim construction hearing. As discussed above, the Court finds that the “at least one” language is consistent with the intrinsic evidence. *See, e.g.*, ’078 Patent at 3:65–66 (“[a] signature 4 is *at least one transmission 1* intended as a security precaution to preclude unauthorized access 39.”) (emphasis added).

c) Court’s Construction

In light of the evidence submitted by the parties, the Court construes **“signature”** to mean **“at least one transmission intended as a security precaution to preclude unauthorized access.”**

5. “input device” and “user-selected device” / “user-selected input device”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“input device”	“a device by which a user enters input into a computer system”	“a device by which a user enters explicit input into a computer”

“user-selected device” / “user-selected input device”	“device selected by the user and by which the user enters input into a computer system”	“an input device selected by the user” [in view of the construction of “input device”]
--	---	--

a) The Parties’ Positions

The parties agree that the recited “input device” is “a device by which a user enters input into a computer system.” The parties dispute whether the construction should be further qualified as an “explicit” input, as Defendants propose. Plaintiff contends that the term “input device” is a plain and ordinary word that does not need additional construction. (Dkt. No. 136 at 14.) Plaintiff argues that its construction is supported by the ’078 Patent specification. (*Id.*) (citing ’078 Patent at 2:36–39). Plaintiff further argues that Defendants’ addition of the term “explicit” is unclear and ambiguous. (Dkt. No. 136 at 14.) According to Plaintiff, Defendants’ construction injects an unnecessary limitation to an already understood term of “input device.” (*Id.*)

Defendants respond that their construction includes an “explicit input” based on the patentee’s argument in distinguishing the prior art of Zilberman and McKeeth. (Dkt. No. 142 at 22.) According to Defendants, the patented “input device” requires the user to enter “explicit input,” not implicit or passive input. (*Id.*) Defendants argue that the ’078 Patent specification distinguishes the claimed invention from the prior art on the basis that the prior art of McKeeth and Zilberman teach implicit input (*i.e.*, recording input unintentionally entered by the user). (*Id.* at 22-23) (citing ’078 at 1:29–40). Defendants also contend that the patentee traversed the examiner’s rejection based on the prior art of McKeeth by noting that it taught “implicit input.” (Dkt. No. 142 at 23) (citing Dkt. No. 142-1 at 8-9). Defendants further argue that the patentee also distinguished the patent claims by successfully arguing that the input of McKeeth was “an implicit, invisible, or non-apparent act” or a “passive act.” (Dkt. No. 142 at 23) (citing Dkt. No. 142-1 at 19-20).

Regarding the terms “user-selected device” and “user-selected input device,” Defendants note that the parties agree that the terms should be given the same construction. (Dkt. No. 142 at 23.) Defendants argue that the plain and ordinary meaning of this term should govern, given that the term “input device” is proposed for construction. (*Id.*) Defendants contend that the parties do not seem to have a meaningful disagreement regarding the construction of this term, given that Plaintiff’s opening brief did not address the term. (*Id.* at 24.)

Plaintiff disagrees that the patentee disclaimed “implicit input,” and argues that the patentee actually stated that “if the user was free to choose the signal types, as claimed by the instant invention herein, there would be no implicit input.” (Dkt. No. 143 at 8) (citing Dkt. No. 142-1 at 8-9). According to Plaintiff, this statement refers to the fact that the user chooses the signal type to input. (Dkt. No. 143 at 8.) Plaintiff contends that there is no debate that the invention requires a user to choose the signal type. (*Id.*) Plaintiff further contends that the limitation proposed by Defendants’ construction does not reflect a user choice of signal, but merely confuses the jury by changing the plain and ordinary word of “input device.” (*Id.*)

For the following reasons, the Court finds that the term **“input device”** should be construed to mean **“a device by which a user enters input into a computer system.”** The Court further finds that the terms **“user-selected device”** and **“user-selected input device”** should be construed to mean **“an input device selected by the user.”**

b) Analysis

The term “input device” appears in claims 1, 3, 9, 20, and 22 of the ’078 Patent; claims 1, 3, 10, 15, and 19 of the ’725 Patent; and claims 1, 6, 8, 9, 10, 13, and 17 of the ’415 Patent. The Court finds that the term is used consistently in the claims and is intended to have the same general meaning in each claim. The terms “user-selected device” and “user-selected input

device” appear in either claims 1, 2, 9, 10, 20, and 22 of the ’078 Patent; or claims 2, 10, 15, and 19 of the ’725 Patent. The Court finds that the terms are used consistently in the claims and are intended to have the same general meaning in each claim.

Defendants argue that the patentee distinguished the prior art based on “implicit” versus “explicit” inputs. The Court disagrees and finds that the patentee distinguished the prior art based on other claimed features. For example, the ’078 Patent specification states that the prior art failed to disclose allowing the user to choose the input device configuration. ’078 at 1 29–40 (“McKeeth disclosed the possible usage of multiple input devices, used singularly or in combination, but only disclosed that ‘the computer system may be configured,’ never anticipating that a user may choose the input device configuration.”). The patentee reiterated this distinction during prosecution when he argued that “if the user was free to choose the signal types, as claimed by the instant invention herein, there would be no implicit input.” (Dkt. No. 142-1 at 9.) When considered in the proper context, the Court agrees with Plaintiff that these statements refer to allowing the user to choose the type of input. They do not limit the claims to “explicit” inputs.

Regarding Defendants’ other citation to the prosecution history, the patentee argued that the prior art failed to disclose incremental signature validation. (Dkt. No. 142-1 at 19-20.) Again, this is not a disclaimer of “implicit” inputs. Indeed, the intrinsic evidence indicates that “explicit” inputs would not have been a basis of patentability because the prior art included both implicit and explicit inputs. ’078 Patent at 1:31–34 (“McKeeth used matching of ‘implicit input’ as part of the authentication, where the implicit input is related to the timing and/or duration of explicit inputs.”); *see also* Dkt. No. 142-1 at 9 (“In one embodiment, the user is always required to perform an implicit, invisible, or non-apparent act (the ‘implicit’ act or input). The implicit

input may include an active and/or a passive act.”).

Regarding the terms “user-selected device” and “user-selected input device,” the Court notes that the parties agree that the terms should be given the same construction. However, the parties did not present arguments for these terms during the claim construction hearing. It is unclear to the Court if the parties have a meaningful dispute for these terms. Given the Court’s construction for “input device,” the Court adopts Defendants’ construction for these terms because it is more concise.

c) Court’s Construction

In light of the evidence submitted by the parties, the Court construes **“input device”** to mean **“a device by which a user enters input into a computer system.”** The Court further construes the terms **“user-selected device”** and **“user-selected input device”** to mean **“an input device selected by the user.”**

B. The “wherein” Terms

Defendants contend that four “wherein” phrases in the ’078 Patent and the ’725 Patent are indefinite. According to Defendants, each of these “wherein” phrases introduce an incomplete clause after the word “wherein” that does not use both a subject and a verb. (Dkt. No. 142 at 25.) Defendants contend that a “wherein” clause operates in a claim to limit further one or more elements previously introduced either in the same claim or a claim from which it depends. (*Id.*) Defendants argue that a grammatically correct “wherein” clause includes a subject and a verb that links element(s) introduced in the clause to previously introduced element(s). (*Id.*) Defendants contend that each disputed “wherein” phrase in the ’725 Patent lacks a verb that would link the elements introduced in the clause to those elements previously introduced. (*Id.*)

Defendants further argue that Plaintiff acknowledges the necessity of a verb by

suggesting that to each “wherein” clause a transitional verb “comprises” should be added to the claim. (*Id.*) Defendants contend that such corrections are unavailable for these “wherein” clauses because selection of any particular transitional verb is open to reasonable debate. (*Id.* at 25-26) (citing *Novo Indus., LP v. Micro Molds Corp.*, 350 F.3d 1348, 1354 (Fed. Cir. 2003)). According to Defendants, Plaintiff has not attempted to meet this standard. (Dkt. No. 142 at 26.)

Plaintiff responds that construing these four terms is unnecessary because the terms can be easily understood in view of the entirety of the patents. (Dkt. No. 136 at 16.) In the alternative, Plaintiff contends its proposed constructions are consistent with the plain and ordinary meaning of the four terms if additional explanation to a lay jury is necessary. (*Id.*) Plaintiff argues that the proper standard regarding definiteness is to “inform those skilled in the art about the invention with reasonable certainty.” (Dkt. No. 143 at 8) (citing *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014)). Plaintiff contends that Defendants cannot show by clear and convincing evidence that the disputed “wherein terms” are indefinite. (Dkt. No. 136 at 16.)

6. “wherein creating said signature using recorded signals from a plurality of signal types”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“wherein creating said signature using recorded signals from a plurality of signal types”	Plain and ordinary meaning. Or in the alternative: “wherein creating said signature based at least in part upon at least a portion of said stored recording comprises using recorded signals from a plurality of signal types”	Indefinite

a) The Parties’ Positions

The parties dispute whether the phrase “wherein creating said signature using recorded

signals from a plurality of signal types” is indefinite. Plaintiff argues that when viewed in the context of the ’725 Patent specification, the claim term “wherein creating said signature using recorded signals from a plurality of signal types” would be easily understood by a lay person. (Dkt. No. 136 at 17) (citing ’725 Patent at 5:8–17, Figure 10). Plaintiff contends that Figure 10 shows that a signature may be created from multiple signal types. (Dkt. No. 136 at 17.) According to Plaintiff, this indicates the phrase should be easily understood and no construction is necessary. (*Id.*)

Defendants respond that the plain and ordinary meaning of the words of the claim do not offer guidance as to what particular verb should be used in the construction. (Dkt. No. 142 at 27.) Defendants argue that the specification makes multiple options equally plausible for addition to the clause, thereby leading to a reasonable debate about what verb to select and rendering the clause inadequate to provide clear notice of what is claimed. (*Id.*) Defendants note that Plaintiff suggests adding the open transitional verb “comprises” to the clause to further delineate “creating said signature” by “using recorded signals” (*Id.*) According to Defendants, equally plausible alternative additions to the clause are the closed transitional verb phrase “consisting of” and the semi-closed transitional phrase “consisting essentially of.”

Defendants argue that the specification suggests a signature can be created by employing possible alternative components, such as a plurality of transmissions, one or more transmission types, one or more signal types and/or composite signals formed from simple signals from more than one device. (*Id.* at 28.) (citing ’725 Patent at 4:9–13; 3:43–48). Defendants contend that because the “wherein” clause includes both the plural “recorded signals” and a “plurality of signal types,” it can be reasonably argued that the patentee’s intent was to claim just one alternative for signature creation to the exclusion of other alternatives suggested in the

specification. The purpose of this would be to maximize the claim's chance of allowance during prosecution. (Dkt. No. 142 at 28.)

Defendants argue that this would then lead to the selection of the closed transitional verb phrase "consisting of" instead of the open transitional verb "comprising." (*Id.*) Defendants further contend that it could also be reasonably argued that the patentee could have thought that the partially closed transitional verb phrase "consisting essentially of" would narrow the claim sufficiently to maximize its chance of allowance in light of possible prior art concerns. (*Id.*) Defendants contend that the scope of the claim would vary significantly from allowing only the use of signals of a plurality of signal types in the creation of a signature to allowing other components to be used in conjunction with the signals of different types in creation of a signature. (*Id.* at 28-29.) According to Defendants, the requirements allowing for correction of this "wherein" clause are not met, leaving the clause incomplete and indefinite. (*Id.* at 29.)

Plaintiff replies that the specification provides clear guidance that the claim term "wherein creating said signature using recorded signals from a plurality of signal types" means that a signal may be created from multiple signal types. (Dkt. No. 143 at 9) (citing '725 Patent at Figure 10). Plaintiff contends that the claims are easily understood with reasonable certainty in light of guidance from the specification to one skilled in the art, and that no construction is necessary. (*Id.*)

For the following reasons, the Court finds that the phrase **"wherein creating said signature using recorded signals from a plurality of signal types"** is not indefinite and should be given its plain and ordinary meaning.

b) Analysis

The phrase "wherein creating said signature using recorded signals from a plurality of

signal types” appears in claim 17 of the ’725 Patent. The Court further finds that the disputed phrase, when read in light of the specification delineating the patent and the prosecution history, informs, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). Moreover, the Court finds that the phrase does not require construction because it is unambiguous, easily understandable by a jury, and should be given its plain and ordinary meaning.

A person of ordinary skill in the art would understand the scope of the claim with reasonable certainty when read in the context of the intrinsic evidence. Independent claim 15 of the ’725 Patent recites “creating a signature based at least in part upon at least a portion of said stored recording.” Dependent claim 17, which depends from claim 15, further recites that the “creating said signature” step of the method of claim 15 is performed “using recorded signals from a plurality of signal types.” Figure 10 illustrates an example of creating a signature using multiple signal types. *See* ’725 Patent at 4:66–67 (“Signature 4 transmission(s) 1 can be input, and input signals 2 recorded.”). Accordingly, a person of ordinary skill in the art would understand the scope of the claim with reasonable certainty when read in the context of the intrinsic evidence.

c) Court’s Construction

In light of the evidence submitted by the parties, the phrase “**wherein creating said signature using recorded signals from a plurality of signal types**” will be given its plain and ordinary meaning.

7. “wherein passively terminating said recording”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“wherein passively terminating said recording”	Plain and ordinary meaning. Or in the alternative: “wherein terminating said recording comprises passively terminating said recording”	Indefinite

a) The Parties’ Positions

The parties dispute whether the phrase “wherein passively terminating said recording” is indefinite. Plaintiff argues that when viewed in the context of the ’725 Patent specification, the claim term “wherein passively terminating said recording” would be easily understood by a lay person. (Dkt. No. 136 at 18.) Plaintiff argues the specification provides examples of “passively terminating said recording.” (*Id.*) (citing ’078 Patent at 1:44–48, 4:40–46, 4:41–53). Plaintiff contends this indicates the phrase should be easily understood and no construction is necessary. (Dkt. No. 136 at 17.)

Defendants argue that this wherein clause lacks both a subject and a verb, thereby failing to inform one of ordinary skill in the art as to what the scope of the claim might be. (Dkt. No. 142 at 29.) Defendants contend that Plaintiff again implicitly requests correction by suggesting the addition of both the subject “terminating said recording” and the transitional verb “comprises” to this “wherein” clause. (*Id.*) According to Defendants, the request to correct fails to offer a correction that is more plausible than other alternatives, thereby failing both to meet the standard for allowance of correction of a claim. (*Id.*)

Defendants further argue that it is equally plausible to propose adding “consists of” instead of the transitional phrase “comprises.” (*Id.*) Defendants contend that the specification discloses forms of passive termination and active termination of submissions. (*Id.*) (citing ’725 Patent at 4:28). Defendants argue that it is plausible that the intent of the patentee in dependent

claim 12 was to limit termination to passive means to the exclusion of active means in order to maximize the chance of allowance. (Dkt. No. 142 at 29.) Defendants contend that there is reasonable debate in support of either alternative addition to the claim, meaning that the requirement for making a correction is not met. (*Id.*)

Plaintiff replies that the specification is more than sufficient to inform one skilled in the art of the scope of “wherein passively terminating said recording” with reasonable certainty. (Dkt. No. 143 at 9.) Plaintiff contends that no construction for this term is necessary, and in the alternative submits a construction. (*Id.*)

For the following reasons, the Court finds that the phrase “**wherein passively terminating said recording**” is not indefinite and should be given its plain and ordinary meaning.

b) Analysis

The phrase “wherein passively terminating said recording” appears in claim 12 of the ’725 Patent. The Court finds that the disputed phrase, when read in light of the specification delineating the patent and the prosecution history, informs, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). Moreover, the Court finds that the phrase does not require construction because it is unambiguous, easily understandable by a jury, and should be given its plain and ordinary meaning.

A person of ordinary skill in the art would understand the scope of the claim with reasonable certainty when read in the context of the intrinsic evidence. Independent claim 10 of the ’725 Patent recites “recording user input signals by type from at least one user-selected device among a plurality of selectable user input devices connected to a single computer.”

Dependent claim 12, which depends from claim 10, further recites that “said recording” is “passively” terminated. The specification provides examples of “passively terminating said recording.” ’725 Patent at 1:49–52 (“Computer login may comprise any user-determined submission, including a plurality of transmissions for which submission may be passively terminated.”); 4:44–48 (“For example, changing from cursor/mouse movement to mouse button clicking may be considered a change in signal type 21, and hence a possible basis for passive termination. Biometric transmission 1 is typically passively terminated”); 4:51–57 (“Termination 23 of identification 3 or signature 4 may occur using any number of protocols: passively 77 by a predetermined or user-selected number of transmissions 1; final transmission 1 by a particular type of action; active termination 78 by a final gesture, such a key or button press; passive termination 77 by time out of a predetermined duration or sufficiency of data collection.”). Accordingly, a person of ordinary skill in the art would understand the scope of the claim with reasonable certainty when read in the context of the intrinsic evidence.

c) Court’s Construction

In light of the evidence submitted by the parties, the phrase **“wherein passively terminating said recording”** will be given its plain and ordinary meaning.

8. **“wherein recording a plurality of signal types for at least one user-selected device”**

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“wherein recording a plurality of signal types for at least one user-selected device”	Plain and ordinary meaning. Or in the alternative: “wherein recording user input signals by type from at least one user-selected device comprises recording a plurality of signal types for at least one user-selected device”	Indefinite

a) The Parties' Positions

The parties dispute whether the phrase “wherein recording a plurality of signal types for at least one user-selected device” is indefinite. Plaintiff argues that when viewed in the context of the ’725 Patent specification, the phrase “wherein recording a plurality of signal types for at least one user-selected device” would be easily understood by a lay person. (Dkt. No. 136 at 19) (citing ’725 Patent at 5:8–17, Figure 10). Plaintiff argues that Figure 10 shows recording user input signals by type from at least one user-selected device includes being recorded from multiple signal types. (Dkt. No. 136 at 19.) Plaintiff contends that this indicates that the phrase should be easily understood and no construction is necessary. (*Id.* at 17.)

Defendants respond that this wherein clause lacks both a subject and a verb, thereby preventing one of ordinary skill in the art from discerning the scope of this clause with relative certainty from the plain and ordinary meaning of the words of the clause by themselves or in conjunction with the rest of claim 15. (Dkt. No. 142 at 30.) Defendants contend that Plaintiff implicitly requests correction by suggesting the addition of a subject and the open transitional verb “comprises.” (*Id.*) Defendants argue that the requirement for correcting a claim is not met in light of the reasonable debate over plausible verb additions that arise from a review of the clause in light of the specification. (*Id.*)

Defendants further argue that it is equally plausible to propose adding “consists of” or the semi-closed transitional verb phrase “consists essentially of,” instead of the transitional phrase “comprises.” (*Id.*) Defendants contend that the specification discusses categorization of signal data, and that alternative components are usable for creation of identification and signature. (*Id.*) (citing ’725 Patent at 3:49–50). Defendants argue that it is plausible that the intent of the patentee with this “wherein” clause was to exclude transmission type factoring into the recording of the signal data, thereby narrowing the claim scope. (Dkt. No. 142 at 30-31.) Defendants

contend that there is reasonable debate in support of either alternative addition to the claim, meaning that the requirement for making a correction is not met. (*Id.* at 30.)

Plaintiff replies that the specification is more than sufficient to inform one skilled in the art of the scope of “wherein recording a plurality of signal types for at least one user-selected device” with reasonable certainty. (Dkt. No. 143 at 10.) Plaintiff argues that the specification makes clear that recording user input signals by type from at least one user selected device includes being recorded from multiple signal types. (*Id.*) Plaintiff contends that no construction for this term is necessary, and in the alternative submits a construction. (*Id.*)

For the following reasons, the Court finds that the phrase “**wherein recording a plurality of signal types for at least one user-selected device**” is not indefinite and should be given its plain and ordinary meaning.

b) Analysis

The phrase “wherein creating said signature using recorded signals from a plurality of signal types” appears in claim 15 of the ’725 Patent. The Court further finds that the disputed phrase, when read in light of the specification delineating the patent and the prosecution history, informs, with reasonable certainty, those skilled in the art about the scope of the invention. *Nautilus Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2124 (2014). Moreover, the Court finds that the phrase does not require construction because it is unambiguous, is easily understandable by a jury, and should be given its plain and ordinary meaning.

A person of ordinary skill in the art would understand the scope of the claim with reasonable certainty when read in the context of the intrinsic evidence. Claim 15 of the ’725 Patent recites “recording a plurality of signal types for at least one user-selected device.” An example of recording a plurality of signal types for at least one user-selected device is illustrated

in Figure 10. '725 Patent at 4:66-67 (“Signature 4 transmission(s) 1 can be input, and input signals 2 recorded.”). Accordingly, a person of ordinary skill in the art would understand the scope of the claim with reasonable certainty when read in the context of the intrinsic evidence.

c) Court’s Construction

In light of the evidence submitted by the parties, the phrase **“wherein recording a plurality of signal types for at least one user-selected device”** will be given its plain and ordinary meaning.

9. “wherein said recording comprises a plurality of user-selected devices”

<u>Disputed Term</u>	<u>Plaintiff’s Proposal</u>	<u>Defendants’ Proposal</u>
“wherein said recording comprises a plurality of user-selected devices”	Plain and ordinary meaning. Or in the alternative: “wherein said recording comprises signal types from a plurality of user-selected devices”	Indefinite

a) The Parties’ Positions

The parties dispute whether the phrase “wherein said recording comprises a plurality of user-selected devices” is indefinite. Plaintiff argues that when viewed in the context of the '725 Patent specification, the phrase would be easily understood by a lay person. (Dkt. No. 136 at 20.) Plaintiff contends that the specification states that “computer login may comprise any user-determined submission, including a plurality of transmissions for which submission may be passively terminated.” (*Id.*) (citing '078 Patent at 1:44–47). Plaintiff further argues that the specification then goes on to give a specific examples of a plurality of user selected devices for input. (Dkt. No. 136 at 20) (citing '078 Patent at 3:30–36). Plaintiff also argues that the specification states “a user may determine as part of account creation which signal types are to

be considered for validation of subsequent submissions.” (Dkt. No. 136 at 20) (citing ’078 Patent at 5:1–19). Plaintiff contends that this indicates that the phrase should be easily understood and no construction is necessary. (Dkt. No. 136 at 21.)

Defendants argue that claim 10 requires the recording itself to comprise multiple user-selected devices. (Dkt. No. 142 at 31.) Defendants argue that it is completely unclear when such a claim would or could be infringed. (*Id.*) Defendants also argue that “said recording” in claim 10 is silent as to whether it refers to the first or second instance of the word “recording” in claim 9, which would alter the scope of the claim. (*Id.* at 32.) Defendants contend that Plaintiff apparently recognizes the claim is incomprehensible and therefore proposes its competing proposal. (*Id.*) Defendants contend that if either instance of the word “recording” in claim 9 were a noun as opposed to a present participle, then a construction would be intelligible. (*Id.*) Defendants contend that a method step of “recording” cannot “comprise” signal types from multiple devices any more than it can “comprise” multiple devices. (*Id.*) According to Defendants, Plaintiff’s construction would be indefinite as construed, regardless of which recording step “said recording” refers to. (*Id.*)

Defendants further argue that the Court should find this term is indefinite because it is not amenable to construction and is nonsensical. (*Id.*) Defendants contend that the Court should not rewrite the patent claims for Plaintiff. (*Id.* at 33) (citing *Chef Am., Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004)). Defendants further argue that if the Court does not find this claim indefinite, it should require the created recording itself to literally comprise multiple input devices, rather than signals or signal types obtained from those devices, as Plaintiff suggests. (Dkt. No. 142 at 33.)

Plaintiff replies that the specification is more than sufficient to inform one skilled in the

art of the scope of “wherein said recording comprises a plurality of user-selected devices” with reasonable certainty. (Dkt. No. 143 at 10.) Plaintiff argues that the specification makes clear that that the computer login comprises “any user-determined submission, including a plurality of transmissions for which submission may be passively terminated.” (*Id.*) Plaintiff further argues that the specification makes clear that the user may select which signal types can be used for validation as part of account creation. (*Id.* at 11.) According to Plaintiff, the claim language, considered in view of the specification, is sufficient to meet the reasonable certainty standard. (*Id.*) Plaintiff argues that no construction for this term is necessary, and in the alternative submits a construction. (*Id.*)

For the following reasons, the Court finds that the phrase **“wherein said recording comprises a plurality of user-selected devices”** is not indefinite and should be given its plain and ordinary meaning.

b) Analysis

The phrase “wherein said recording comprises a plurality of user-selected devices” appears in claim 10 of the ’078 Patent. The Court finds that the phrase does not require construction because it is unambiguous, is easily understandable by a jury, and should be given its plain and ordinary meaning.

A person of ordinary skill in the art would understand the scope of the claim with reasonable certainty. Independent claim 9 of the ’078 Patent recites “recording input data of at least one signal type from at least one user-selected input device among a plurality of selectable user input devices.” Dependent claim 10, which depends from claim 9, further recites that “said recording” includes “a plurality of user-selected devices.” The plain language of the claim states that the recording itself comprises multiple user-selected devices. Contrary to Plaintiff’s

suggestion, the claim does not state that the recording comprises signals or signal types obtained from those devices. A person of ordinary skill in the art could read this claim language and would understand that this is the scope of the claim with reasonable certainty. *See Chef Am.*, 358 F.3d at 1375–76 (“This argument of Chef America is but a restatement of its basic contention that unless we rewrite the claim, the patented process cannot perform its intended function. We have already declined, however, to take such action, and we follow the same course in response to this additional version of the argument.”).

The Court rejects Plaintiff’s alternative construction because it is inconsistent with the other claims. Specifically, dependent claim 2 of the ’078 Patent recites “wherein said recording comprises signals from a plurality of user-selected devices.” This shows the patentee understood how to claim a recording that includes signals from a plurality of user-selected devices. It further shows the patentee did not intend the words in claim 10 to have anything other than their plain and ordinary meaning. Accordingly, the Court rejects Plaintiff’s alternative construction.

c) Court’s Construction

In light of the evidence submitted by the parties, the phrase “**wherein said recording comprises a plurality of user-selected devices**” will be given its plain and ordinary meaning.

V. CONCLUSION

The parties are ordered to not refer to each other’s claim construction positions in the presence of the jury. Likewise, in the presence of the jury, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court. The Court’s reasoning in this order binds the testimony of any witnesses, but any reference to the claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

It is SO ORDERED.

SIGNED this 25th day of July, 2016.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE